Filing Date: October 29, 2003
Title: CROSS-CHECKING

CROSS-CHECKING OF TRANSTHORACIC IMPEDENCE AND ACCELERATION SIGNALS

<u>REMARKS</u>

This responds to the Office Action dated on January 30, 2008.

Claims 1-4, 7, 9, 11, 14, 19, 21, 24, 25, 28, 29, 33-38, and 44 are amended, and claims 8, 10, and 41 are canceled; as a result, claims 1-7, 9, 11-40, and 42-55 are now pending in this application.

Support for the claim amendments is found, for example, on page 9, lines 5-30 and page 10, lines 1-20 of the present application as originally filed.

In the Title

The title has been amended to correct a typographical error. No new matter has been added.

§102 Rejection of the Claims Using Scheiner

Claims 1, 3-8 and 10-55 were rejected under 35 U.S.C. § 102(b) for anticipation by Scheiner et al. (U.S. Publication 2002/0147475, herein "Scheiner").

Claim 1

Claim 1 has been amended to better describe the recited subject matter.

Applicant respectfully traverses the rejection and submits that the Office Action does not set forth a proper *prima facie* case of anticipation because the cited portions of Scheiner do not provide the recited subject matter. For example, Applicant is unable to find in the cited portions of Scheiner, among other things, a processor adapted to compare a first ventilation rate and a second ventilation rate to determine whether the first ventilation code differs from the second ventilation rate, as recited in claim 1.

Applicant respectfully requests reconsideration and allowance of claim 1.

Claims 3-8 and 10

Claims 8 and 10 have been canceled.

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Applicant respectfully traverses the rejection. Claims 3-7 are dependent on claim 1, which is believed to be allowable for at least the reasons set forth above. Therefore, the discussion above for claim 1 is incorporated herein to support the patentability of claims 3-7.

Applicant respectfully requests reconsideration and allowance of claims 3-7.

Claim 11

Claim 11 has been amended to better describe the recited subject matter.

Applicant respectfully traverses the rejection and submits that the Office Action does not set forth a proper prima facie case of anticipation because the cited portions of Scheiner do not provide the recited subject matter. For example, Applicant is unable to find in the cited portions of Scheiner, among other things, a processor adapted to compare signals received from a plurality of sensors and adjust a pacing rate using a result of the comparison, as recited in claim 11.

Applicant respectfully requests reconsideration and allowance of claim 11.

Claims 12-13

Applicant respectfully traverses the rejection. Claims 12-13 are dependent on claim 11, which is believed to be allowable for at least the reasons set forth above. Therefore, the discussion above for claim 11 is incorporated herein to support the patentability of claims 12-13.

Applicant respectfully requests reconsideration and allowance of claims 12-13.

Claim 14

Claim 14 has been amended to better describe the recited subject matter.

Applicant respectfully traverses the rejection and submits that the Office Action does not set forth a proper prima facie case of anticipation because the cited portions of Scheiner do not provide the recited subject matter. For example, Applicant is unable to find in the cited portions of Scheiner, among other things, a processor adapted to determine a difference between a first ventilation rate and a second ventilation rate, as recited in claim 14.

Applicant respectfully requests reconsideration and allowance of claim 14.

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Claims 15-20

Applicant respectfully traverses the rejection. Claims 15-20 are dependent on claim 14, which is believed to be allowable for at least the reasons set forth above. Therefore, the discussion above for claim 14 is incorporated herein to support the patentability of claims 15-20.

Applicant respectfully requests reconsideration and allowance of claims 15-20.

Claim 21

Claim 21 has been amended to better describe the recited subject matter.

Applicant respectfully traverses the rejection and submits that the Office Action does not set forth a proper prima facie case of anticipation because the cited portions of Scheiner do not provide the recited subject matter. For example, Applicant is unable to find in the cited portions of Scheiner, among other things, a processor adapted to receive the first ventilation signal, the second ventilation signal and the first acceleration signal and adapted to cross check the first ventilation signal and the second ventilation signal with the first acceleration signal, as recited in claim 21.

Applicant respectfully requests reconsideration and allowance of claim 21.

Claims 22-24

Applicant respectfully traverses the rejection. Claims 22-24 are dependent on claim 21, which is not rejected under 35 U.S.C. §102(e). Applicant respectfully submits that because claim 22-24 includes each and every element of claim 21, they cannot be anticipated by Scheiner if claim 21 is not anticipated by Scheiner.

Applicant respectfully requests reconsideration and allowance of claims 22-24.

Claim 25

Claim 25 has been amended to better describe the recited subject matter.

Applicant respectfully traverses the rejection and submits that the Office Action does not set forth a proper prima facie case of anticipation because no reason is given in support of the rejection. Claim 25 is indicated as being rejected in paragraph 9 of the Office Action, but the

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rejection is not further discussed in the following paragraphs. Applicant respectfully requests a proper ground to support the rejection, or withdrawal of the rejection.

It is respectfully noted that the Office Action states, in paragraph 3, that regarding claim 25, "Applicant further argues that Scheiner only finds a relationship" However, Applicant did not make such argument in the previous Amendment and Response because the previous Office Action did not provide a reason in support of the rejection.

Applicant respectfully requests reconsideration and allowance of claim 25.

Claims 26-28

Applicant respectfully traverses the rejection. Claims 26-28 are dependent on claim 25, which is believed to be allowable for at least the reasons set forth above. Therefore, the discussion above for claim 25 is incorporated herein to support the patentability of claims 26-28.

Applicant respectfully requests reconsideration and allowance of claims 26-28.

Claim 29

Claim 29 has been amended to better describe the recited subject matter.

Applicant respectfully traverses the rejection and submits that the Office Action does not set forth a proper prima facie case of anticipation because the cited portions of Scheiner do not provide the recited subject matter. For example, Applicant is unable to find in the cited portions of Scheiner, among other things, a processor adapted to determine whether a first ventilation rate substantially differs from a second ventilation rate, as recited in claim 29.

Applicant respectfully requests reconsideration and allowance of claim 29.

Claims 30-37

Applicant respectfully traverses the rejection. Claims 30-37 are dependent on claim 29, which is believed to be allowable for at least the reasons set forth above. Therefore, the discussion above for claim 29 is incorporated herein to support the patentability of claims 30-37.

Applicant respectfully requests reconsideration and allowance of claims 30-37.

AMENDMENT AND RESPONSE UNDER 37 CFR § 1.116 – EXPEDITED PROCEDURE

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Claim 38

Claim 38 has been amended to more clearly describe the recited subject matter.

Applicant respectfully traverses the rejection and submits that the Office Action does not set forth a proper *prima facie* case of anticipation because the cited portions of Scheiner do not provide the recited subject matter. For example, Applicant is unable to find in the cited portions of Scheiner, among other things, receiving a third signal indicative of activity of the heart and delivering a second therapy regimen to the heart if the first signal is substantially different from the second signal, the third signal received from an accelerometer, the second therapy regimen selected as a function of the third signal, as recited in claim 38.

Applicant respectfully requests reconsideration and allowance of claim 38.

Claims 39-45

Claim 41 has been canceled.

Applicant respectfully traverses the rejection. Claims 39-40 and 42-45 are dependent on claim 38, which is believed to be allowable for at least the reasons set forth above. Therefore, the discussion above for claim 38 is incorporated herein to support the patentability of claims 39-40 and 42-45.

Applicant respectfully requests reconsideration and allowance of claims 39-40 and 42-45.

Claim 46

Claim 46 has been amended to better describe the recited subject matter.

Applicant respectfully traverses the rejection and submits that the Office Action does not set forth a proper *prima facie* case of anticipation because the cited portions of Scheiner do not provide the recited subject matter. For example, Applicant is unable to find in the cited portions of Scheiner, among other things, using a processor to detect a similarity between signals of a plurality of input signals including at least a first ventilation rate and a second ventilation rate, and delivering therapy to the heart based on the detected similarity, as recited in claim 46.

The Office Action states, in paragraph 7, that "Scheiner discloses ... a processor capable of identifying the relationship between the two impedances (e.g. ¶ 66; Figs 9 and 10)." However, claim 46 recites a similarity between signals of a plurality of input signals including at

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least a first ventilation rate and a second ventilation rate, in contrast to the alleged "relationship between two impedances". "Relationship" is not equivalent to "similarity".

Applicant respectfully requests reconsideration and allowance of claim 46.

Claims 47-52

Applicant respectfully traverses the rejection. Claims 47-52 are dependent on claim 46, which is believed to be allowable for at least the reasons set forth above. Therefore, the discussion above for claim 46 is incorporated herein to support the patentability of claims 47-52.

Applicant respectfully requests reconsideration and allowance of claims 47-52.

Claim 53

Applicant respectfully traverses the rejection and submits that the Office Action does not set forth a proper prima facie case of anticipation because the cited portions of Scheiner do not provide the recited subject matter. For example, Applicant is unable to find in the cited portions of Scheiner, among other things, processor means adapted to generate a code as a function of a detected similarity between a first ventilation signal, a second ventilation signal and a first acceleration signal, as recited in claim 53.

The Office Action states, in paragraph 7, that "Scheiner discloses ... a processor capable of identifying the relationship between the two impedances (e.g. ¶ 66; Figs 9 and 10)." However, claim 53 recites similarity between ventilation and acceleration signals, in contrast to the alleged "relationship between the two impedances". "Relationship" is not equivalent to "similarity", and "ventilation and acceleration signals" are not equivalent to "two impedances".

Applicant respectfully requests reconsideration and allowance of claim 53.

Claims 54-55

Applicant respectfully traverses the rejection. Claims 54-55 are dependent on claim 53, which is believed to be allowable for at least the reasons set forth above. Therefore, the discussion above for claim 53 is incorporated herein to support the patentability of claims 54-55.

Applicant respectfully requests reconsideration and allowance of claims 54-55.

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§102 Rejection of the Claims Using Daum

Claims 1-6, 9-11, 13-16, 19-20, 23-26, 28-34, 38-40, 44-46, 51-53 and 55 were rejected under 35 U.S.C. §102(e) for anticipation by Daum et al. (U.S. Patent No. 7,101,339, herein "Daum")

Claim 1

Claim 1 has been amended to better describe the recited subject matter

Applicant respectfully traverses the rejection and submits that the Office Action does not set forth a proper *prima facie* case of anticipation because the cited portions of Daum do not provide the recited subject matter. For example, Applicant is unable to find in the cited portions of Daum, among other things, a processor adapted to compare a first ventilation rate and a second ventilation rate to determine whether the first ventilation code differs from the second ventilation rate, as recited in claim 1.

Applicant respectfully requests reconsideration and allowance of claim 1.

Claims 2-6 and 9-10

Claim 10 has been canceled.

Applicant respectfully traverses the rejection. Claims 2-6 and 9 are dependent on claim 1, which is believed to be allowable for at least the reasons set forth above. Therefore, the discussion above for claim 1 is incorporated herein to support the patentability of claims 2-6 and 9.

Applicant respectfully requests reconsideration and allowance of claims 2-6 and 9.

Claim 11

Claim 11 has been amended to better describe the recited subject matter.

Applicant respectfully traverses the rejection and submits that the Office Action does not set forth a proper *prima facie* case of anticipation because the cited portions of Daum do not provide the recited subject matter. For example, Applicant is unable to find in the cited portions of Daum, among other things, a processor adapted to compare signals received from a plurality of sensors and adjust a pacing rate using a result of the comparison, as recited in claim 11.

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Applicant respectfully requests reconsideration and allowance of claim 11.

Claim 13

Applicant respectfully traverses the rejection. Claim 13 is dependent on claim 11, which is believed to be allowable for at least the reasons set forth above. Therefore, the discussion above for claim 11 is incorporated herein to support the patentability of claim 13.

Applicant respectfully requests reconsideration and allowance of claim 13.

Claim 14

Claim 14 has been amended to better describe the recited subject matter.

Applicant respectfully traverses the rejection and submits that the Office Action does not set forth a proper *prima facie* case of anticipation because the cited portions of Daum do not provide the recited subject matter. For example, Applicant is unable to find in the cited portions of Daum, among other things, a processor adapted to determine a difference between a first ventilation rate and a second ventilation rate, as recited in claim 14.

Applicant respectfully requests reconsideration and allowance of claim 14.

Claims 15-16 and 19-20

Applicant respectfully traverses the rejection. Claims 15-16 and 19-20 are dependent on claim 14, which is believed to be allowable for at least the reasons set forth above. Therefore, the discussion above for claim 14 is incorporated herein to support the patentability of claims 15-16 and 19-20.

Applicant respectfully requests reconsideration and allowance of claims 15-16 and 19-20.

Claims 23-24

Applicant respectfully traverses the rejection. Claims 23-24 are dependent on claim 21, which is not rejected under 35 U.S.C. §102(e). Applicant respectfully submits that because claim 23-24 includes each and every element of claim 21, they cannot be anticipated by Daum if claim 21 is not anticipated by Daum.

Applicant respectfully requests reconsideration and allowance of claims 23-24.

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Claim 25

Claim 25 has been amended to better describe the recited subject matter.

Applicant respectfully traverses the rejection and submits that the Office Action does not set forth a proper prima facie case of anticipation because the cited portions of Daum do not provide the recited subject matter. For example, Applicant is unable to find in the cited portions of Daum, among other things, comparing a first ventilation rate to a second ventilation rate, and adjusting a pacing therapy using a result of the comparison, as recited in claim 25.

Applicant respectfully requests reconsideration and allowance of claim 25.

Claims 26 and 28

Applicant respectfully traverses the rejection. Claims 26 and 28 are dependent on claim 25, which is believed to be allowable for at least the reasons set forth above. Therefore, the discussion above for claim 25 is incorporated herein to support the patentability of claims 26 and 28.

Applicant respectfully requests reconsideration and allowance of claims 26 and 28.

Claim 29

Claim 29 has been amended to better describe the recited subject matter.

Applicant respectfully traverses the rejection and submits that the Office Action does not set forth a proper prima facie case of anticipation because the cited portions of Daum do not provide the recited subject matter. For example, Applicant is unable to find in the cited portions of Daum, among other things, a processor adapted to determine whether a first ventilation rate substantially differs from a second ventilation rate, as recited in claim 29.

Applicant respectfully requests reconsideration and allowance of claim 29.

Claims 30-34

Applicant respectfully traverses the rejection. Claims 30-34 are dependent on claim 29, which is believed to be allowable for at least the reasons set forth above. Therefore, the discussion above for claim 29 is incorporated herein to support the patentability of claims 30-34. AMENDMENT AND RESPONSE UNDER 37 CFR § 1.116 – EXPEDITED PROC Serial Number: 10/696,729

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Applicant respectfully requests reconsideration and allowance of claims 30-34.

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Claim 38

Claim 38 has been amended to more clearly describe the recited subject matter.

Applicant respectfully traverses the rejection and submits that the Office Action does not set forth a proper *prima facie* case of anticipation because the cited portions of Daum do not provide the recited subject matter. For example, Applicant is unable to find in the cited portions of Daum, among other things, receiving a third signal indicative of activity of the heart and delivering a second therapy regimen to the heart if the first signal is substantially different from the second signal, the third signal received from an accelerometer, the second therapy regimen selected as a function of the third signal, as recited in claim 38.

Applicant respectfully requests reconsideration and allowance of claim 38.

Claims 39-40 and 44-45

Applicant respectfully traverses the rejection. Claims 39-40 and 44-45 are dependent on claim 38, which is believed to be allowable for at least the reasons set forth above. Therefore, the discussion above for claim 38 is incorporated herein to support the patentability of claims 39-40 and 44-45.

Applicant respectfully requests reconsideration and allowance of claims 39-40 and 44-45.

Claim 46

Applicant respectfully traverses the rejection and submits that the Office Action does not set forth a proper *prima facie* case of anticipation because the cited portions of Daum do not provide the recited subject matter. For example, Applicant is unable to find in the cited portions of Scheiner, among other things, using a processor to detect a similarity between signals of a plurality of input signals including at least a first ventilation rate and a second ventilation rate, and delivering therapy to the heart based on the detected similarity, as recited in claim 46.

Claim 46 is rejected in paragraph 17 of the Office Action without a specific reason. The Office Action states, in paragraph 17, that "pacemakers and defibrillators inherently have a pulse generator and therapy circuitry." However, claim 46 does not merely recite "a pulse generator

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and therapy circuitry". The Office Action does not indicate where and how Daum discloses using a processor to detect a similarity between at least ventilation rates and delivering therapy based on the detected similarity, as recited in claim 46. Therefore, the rejection is also respectfully traversed as an improper conclusory statement made without a specific ground.

It is respectfully noted that the Office Action states, in paragraph 5, that regarding claim 46, "Applicant further argues that Daum only finds a relationship" However, Applicant did not make such argument in the previous Amendment and Response because the previous Office Action did not provide a relevant reason in support of the rejection.

Applicant respectfully requests reconsideration and allowance of claim 46.

Claims 51-52

Applicant respectfully traverses the rejection. Claims 51-52 are dependent on claim 46, which is believed to be allowable for at least the reasons set forth above. Therefore, the discussion above for claim 46 is incorporated herein to support the patentability of claims 51-52.

Applicant respectfully requests reconsideration and allowance of claims 51-52.

Claim 53

Applicant respectfully traverses the rejection and submits that the Office Action does not set forth a proper prima facie case of anticipation because the cited portions of Daum do not provide the recited subject matter. For example, Applicant is unable to find in the cited portions of Daum, among other things, processor means adapted to generate a code as a function of a detected similarity between a first ventilation signal, a second ventilation signal and a first acceleration signal, as recited in claim 53.

Claim 53 is rejected in paragraph 20 of the Office Action without a specific reason. The Office Action states, in paragraph 17, that "Daum discloses that the system and method can be used internally, externally, or with any type of cardiac rhythm management system and is capable of being configured to a thorax (Col. 2, 1l. 50-61)." It is unclear what this statement is intended to show with respect to claim 53. The Office Action does not assert whether and how Daum discloses processor to generate a code as a function of a detected similarity between

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ventilation and acceleration signals as recited in claim 53. Therefore, the rejection is also respectfully traversed as an improper conclusory statement made without a specific ground.

It is respectfully noted that the Office Action states, in paragraph 5, that regarding claim 53, "Applicant further argues that Daum only finds a relationship" However, Applicant did not make such argument in the previous Amendment and Response because the previous Office Action did not provide a relevant reason in support of the rejection.

Applicant respectfully requests reconsideration and allowance of claim 53.

Claim 55

Applicant respectfully traverses the rejection. Claim 55 is dependent on claim 53, which is believed to be allowable for at least the reasons set forth above. Therefore, the discussion above for claim 53 is incorporated herein to support the patentability of claim 55.

Applicant respectfully requests reconsideration and allowance of claim 55.

§102 Rejection of the Claims Using Wang

Claims 1-4, 6, 9-11, 14, 16, 25-26, 29-32, 38-40, 44, 51, 53, and 55 were rejected under 35 U.S.C. §102(e) for anticipation by Wang et al. (U.S. Publication 2005/0080460, herein "Wang")

It is respectfully noted that paragraph 21 of the Office Action indicates that claims 1-4, 6, 9-11, 14, 16, 25-26, 29-32, 38-40, 44 and 51 are rejected under 35 U.S.C. §102(e) for anticipation by Wang. Paragraph 23 of the Office Action indicates claims 53 and 55 are rejected using Wang. Applicant believes that claims 53 and 55 are also rejected under 35 U.S.C. §102(e) for anticipation by Wang, and the relevant remarks regarding claims 53 and 55 are prepared accordingly.

Claim 1

Claim 1 has been amended to better describe the recited subject matter.

Applicant respectfully traverses the rejection and submits that the Office Action does not set forth a proper *prima facie* case of anticipation because the cited portions of Wang do not provide the recited subject matter. For example, Applicant is unable to find in the cited portions

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of Wang, among other things, a processor adapted to compare a first ventilation rate and a second ventilation rate to determine whether the first ventilation code differs from the second ventilation rate, as recited in claim 1.

Applicant respectfully requests reconsideration and allowance of claim 1.

Claims 2-4, 6, and 9-10

Claim 10 has been canceled.

Applicant respectfully traverses the rejection. Claims 2-4, 6, and 9 are dependent on claim 1, which is believed to be allowable for at least the reasons set forth above. Therefore, the discussion above for claim 1 is incorporated herein to support the patentability of claims 2-4, 6, and 9.

Applicant respectfully requests reconsideration and allowance of claims 2-4, 6, and 9.

Claim 11

Claim 1 has been amended to better describe the recited subject matter.

Applicant respectfully traverses the rejection and submits that the Office Action does not set forth a proper prima facie case of anticipation because the cited portions of Wang do not provide the recited subject matter. For example, Applicant is unable to find in the cited portions of Wang, among other things, a processor adapted to compare signals received from a plurality of sensors and adjust a pacing rate using a result of the comparison, as recited in claim 11.

Applicant respectfully requests reconsideration and allowance of claim 11.

Claim 14

Claim 14 has been amended to better describe the recited subject matter.

Applicant respectfully traverses the rejection and submits that the Office Action does not set forth a proper prima facie case of anticipation because the cited portions of Wang do not provide the recited subject matter. For example, Applicant is unable to find in the cited portions of Wang, among other things, a processor adapted to determine a difference between a first ventilation rate and a second ventilation rate, as recited in claim 14.

Applicant respectfully requests reconsideration and allowance of claim 14.

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Claim 16

Applicant respectfully traverses the rejection. Claim 16 is dependent on claim 14, which is believed to be allowable for at least the reasons set forth above. Therefore, the discussion above for claim 14 is incorporated herein to support the patentability of claim 16.

Applicant respectfully requests reconsideration and allowance of claims 16.

Claim 25

Claim 25 has been amended to better describe the recited subject matter.

Applicant respectfully traverses the rejection and submits that the Office Action does not set forth a proper *prima facie* case of anticipation because the cited portions of Wang do not provide the recited subject matter. For example, Applicant is unable to find in the cited portions of Wang, among other things, comparing a first ventilation rate to a second ventilation rate, and adjusting a pacing therapy using a result of the comparison, as recited in claim 25.

Applicant respectfully requests reconsideration and allowance of claim 25.

Claim 26

Applicant respectfully traverses the rejection. Claim 26 is dependent on claim 25, which is believed to be allowable for at least the reasons set forth above. Therefore, the discussion above for claim 25 is incorporated herein to support the patentability of claim 26.

Applicant respectfully requests reconsideration and allowance of claim 26.

Claim 29

Claim 29 has been amended to better describe the recited subject matter.

Applicant respectfully traverses the rejection and submits that the Office Action does not set forth a proper *prima facie* case of anticipation because the cited portions of Wang do not provide the recited subject matter. For example, Applicant is unable to find in the cited portions of Wang, among other things, a processor adapted to determine whether a first ventilation rate substantially differs from a second ventilation rate, as recited in claim 29.

Applicant respectfully requests reconsideration and allowance of claim 29.

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Claims 30-32

Applicant respectfully traverses the rejection. Claims 30-32 are dependent on claim 29, which is believed to be allowable for at least the reasons set forth above. Therefore, the discussion above for claim 29 is incorporated herein to support the patentability of claims 30-32.

Applicant respectfully requests reconsideration and allowance of claims 30-32.

Claim 38

Claim 38 has been amended to better describe the recited subject matter.

Applicant respectfully traverses the rejection and submits that the Office Action does not set forth a proper *prima facie* case of anticipation because the cited portions of Wang do not provide the recited subject matter. For example, Applicant is unable to find in the cited portions of Wang, among other things, receiving a third signal indicative of activity of the heart and delivering a second therapy regimen to the heart if the first signal is substantially different from the second signal, the third signal received from an accelerometer, the second therapy regimen selected as a function of the third signal, as recited in claim 38.

Applicant respectfully requests reconsideration and allowance of claim 38.

Claims 39-40, 44, and 51

Applicant respectfully traverses the rejection. Claims 39-40, 44, and 51 are dependent on claim 38, which is believed to be allowable for at least the reasons set forth above. Therefore, the discussion above for claim 38 is incorporated herein to support the patentability of claims 39-40, 44, and 51.

Applicant respectfully requests reconsideration and allowance of claims 39-40, 44, and 51.

Claim 53

Applicant respectfully traverses the rejection and submits that the Office Action does not set forth a proper *prima facie* case of anticipation because the cited portions of Wang do not provide the recited subject matter. For example, Applicant is unable to find in the cited portions

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of Wang, among other things, processor means adapted to generate a code as a function of a detected similarity between a first ventilation signal, a second ventilation signal and a first acceleration signal, as recited in claim 53.

The Office Action states, in paragraph 18, that "Wang discloses ... a processor to cross-check impedance measurements using two different impedance measurements (e.g. ABSTRACT; ¶¶ 35-40, 116)". However, claim 53 recites similarity between ventilation and acceleration signals, in contrast to only the alleged "impedance measurements". "Ventilation and acceleration signals" are not equivalent to two different impedances.

Applicant respectfully requests reconsideration and allowance of claim 53.

Claim 55

Applicant respectfully traverses the rejection. Claim 55 is dependent on claim 53, which is believed to be allowable for at least the reasons set forth above. Therefore, the discussion above for claim 53 is incorporated herein to support the patentability of claim 55.

Applicant respectfully requests reconsideration and allowance of claim 55.

§103 Rejection of the Claims Using Scheiner and Hine

Claims 22, 37, and 54 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Scheiner in view of Hine et al. (U.S. Patent No. 7,142,919, herein "Hine").

Applicant respectfully traverses the rejection. Claims 22, 37, and 54 are dependent on base claims that are believed to be allowable for at least the reasons set forth above. It is believed that the addition of Hine does not remedy the deficiency of Scheiner as discussed above for these base claims. Therefore, the discussion above for the base claims are incorporated herein to support the patentability of claims 22, 37 and 54.

Applicant respectfully requests reconsideration and allowance of claims 22, 37 and 54.

§103 Rejection of the Claims Using Wang and Hine

Claims 7-8, 12, 17-18, 21-24, 27, 35-37, 41-43, 47-50, and 54 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Wang in view of Hine.

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Claim 21

Claim 21 has been amended to better describe the recited subject matter.

Applicant respectfully traverses the rejection and submits that the Office Action does not set forth a proper *prima facie* case of obviousness because the cited portions of Wang and Hine, individually or in combination with each other and reasoning given in the Office Action, do not provide the recited subject matter. For example, Applicant is unable to find in the cited portions of Wang and Hine, individually or in combination, among other things, a processor adapted to receive the first ventilation signal, the second ventilation signal and the first acceleration signal and adapted to cross check the first ventilation signal and the second ventilation signal with the first acceleration signal, as recited in claim 21. Applicant is also unable to find in the Office Action a reason that remedies this deficiency.

The Office Action states, in paragraph 29: "Wang fails to disclose an impedance monitoring system that includes an activity sensor. However, Hine discloses a lead system that utilizes impedance, transthoracic impedance, and acceleration in variable pacing (Col. 6, ll. 1-67)." However, claim 21 recites a processor adapted to cross check the first ventilation signal and the second ventilation signal with the first acceleration signal, as opposed to merely a system sensing both ventilation and acceleration signals. Absent impermissible hindsight, Applicant is unable to find a reason in Wang, Hine, and the Office Action why one of ordinary skill in the art would cross check two ventilation signals with an acceleration signal as recited in claim 21. Therefore, Applicant respectfully submits that the Office Action does not provide clearly articulated reasoning with some rational underpinning to support the legal conclusion of obviousness.

Applicant respectfully requests reconsideration and allowance of claim 21.

Claims 7-8, 12, 17-18, 22-24, 27, 35-37, 41-43, 47-50, and 54

Applicant respectfully traverses the rejection. Claims 7-8, 12, 17-18, 22-24, 27, 35-37, 41-43, 47-50, and 54 are dependent on base claims that are believed to be allowable for at least the reasons set forth above. It is believed that the addition of Hine does not remedy the deficiency of Wang as discussed above for these base claims. Therefore, the discussion above

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Title: CROSS-CHECKING OF TRANSTHORACIC IMPEDENCE AND ACCELERATION SIGNALS

for the base claims are incorporated herein to support the patentability of claims 7-8, 12, 17-18, 22-24, 27, 35-37, 41-43, 47-50, and 54.

Applicant respectfully requests reconsideration and allowance of claims 7-8, 12, 17-18, 22-24, 27, 35-37, 41-43, 47-50, and 54.

Reservation of the Right to Swear Behind References

Applicant reserves its right to swear behind any references which are cited in a rejection under 35 U.S.C. §§102(e) and 103/102(e). Statements distinguishing the claimed subject matter over the cited references are not to be interpreted as admissions that the references are prior art.

AMENDMENT AND RESPONSE UNDER 37 CFR § 1.116 – EXPEDITED PROCEDURE

Serial Number: 10/696,729 Filing Date: October 29, 2003

Title:

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CROSS-CHECKING OF TRANSTHORACIC IMPEDENCE AND ACCELERATION SIGNALS

CONCLUSION

Applicant respectfully submits that the claims are in condition for allowance and notification to that effect is earnestly requested. The Examiner is invited to telephone Applicant's attorney (612) 373-6965 to facilitate prosecution of this application.

If necessary, please charge any additional fees or credit overpayment to Deposit Account No. 19-0743.

Respectfully submitted,

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CERTIFICATE UNDER 37 CFR 1.8: The undersigned hereby certifies that this correspondence is being filed using the USPTO's electronic filing system EFS-Web, and is addressed to: Commissioner of Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on this 29 day of May

Name

Signature